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| **FlyweightDemo.java** |
| **Line** | **Code** |
| **1****2****3****4****5****6****7****8****9****10****11****12****13****14****15****16****17****18****19****20****21****22****23****24****25****26****27****28****29****30****31****32****33****34****35****36****37****38****39****40****41****42****43****44****45****46****47****48****49****50****51****52****53****54****55****56****57****58****59****60****61****62****63****64****65****66****67****68****69****70****71****72** | /\*---------------------------------------------------------------------------This structural code demonstrates the Flyweight pattern ----------------------------------------------------------------------------\*/**using** System;**using** System.Collections.Generic;**namespace** FlyWeight { **class** FlyweightFactory { **private** Dictionary<String, Flyweight> flyweights = **new** Dictionary<String, Flyweight>(); **public** FlyweightFactory() { flyweights.Add("X", **new** ConcreteFlyweight()); flyweights.Add("Y", **new** ConcreteFlyweight()); flyweights.Add("Z", **new** ConcreteFlyweight()); } **public** Flyweight **this**[**string** key] { **get** { **if** (!flyweights.ContainsKey(key)) flyweights.Add(key, **new** ConcreteFlyweight()); **return** flyweights[key]; } } } **abstract class** Flyweight { **public abstract void** Operation(**int** extrinsicstate); } **class** ConcreteFlyweight : Flyweight { **public int** intrinsicState = 10; **public override void** Operation(**int** extrinsicstate) { Console.WriteLine("ConcreteFlyweight: " + extrinsicstate); } } **class** UnsharedConcreteFlyweight : Flyweight { **public override void** Operation(**int** extrinsicstate) { Console.WriteLine("UnsharedConcreteFlyweight: " + extrinsicstate); } } **class** Program { **static void** Main() { //Arbitrary extrinsic state  **int** extrinsicstate = 22; FlyweightFactory f = **new** FlyweightFactory(); // Work with different flyweight instances  Flyweight fx = f["X"]; fx.Operation(--extrinsicstate); Flyweight fy = f["Y"]; fy.Operation(--extrinsicstate); Flyweight fz = f["Z"]; fz.Operation(--extrinsicstate); //UnsharedConcreteFlyweight uf = new UnsharedConcreteFlyweight(); Flyweight uf = **new** UnsharedConcreteFlyweight(); uf.Operation(--extrinsicstate); Console.ReadKey(); } }}/\*=================== OUTPUT ===================ConcreteFlyweight: 21ConcreteFlyweight: 20ConcreteFlyweight: 19UnsharedConcreteFlyweight: 18=================================================\*/ |